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ABSTRACT

A survey of school districts was conducted to determine the initial progress and problems associated with the 1997 Class Size Reduction (CSR) Initiative. Data reveal that most school districts had enough space for smaller classes for at least two grade levels; small school districts were much less likely to report space constraints. The CSR did cause some collective bargaining problems for some districts concerning smaller class size costs curtailing teacher salary increases and workload concerns. Finally, the mandated CSR teacher training is being mostly conducted on an ad hoc basis with little attention being paid to core materials needed. Several policy issues are examined that could impede CSR's future progress. Issues include the ability of smaller classes to actually improve student performance, fading interest from parents and teachers, CSR funding eroding available funding for other programs, space constraints preventing equal implementation within school districts, and teacher supply increasing rapidly enough to prevent bottlenecks. An appendix provides summary information on the study's research sample. (GR)

EARLY IMPLEMENTATION OF THE CLASS SIZE REDUCTION INITIATIVE

By

David C. Illig, Ph.D.

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EXECUTIVE SUMMARY

The Class Size Reduction Initiative enacted in July 1997 has been widely implemented. It has been well received among parents and school personnel. Nevertheless, early implementation has not been without its challenges. At the request of the Office of Child Development and Education, the California Research Bureau surveyed school districts to determine the initial progress of implementation of the Class Size Reduction (CSR) Initiative.

This report found that:

- **Facilities and space issues persist in many school districts.** Most school districts indicate that they have space at all schools for smaller classes for at least two grade levels; four in ten school districts indicate that they have space for four grade levels. Conversely, one quarter of school districts indicate that they do not have space at any school for smaller classes at four grade levels. Small school districts are much less likely to report space constraints.
- **CSR has caused collective bargaining problems for some districts.** One in four school districts indicate that collective bargaining issues were significant in their implementation of smaller classes this year. Nearly half indicate that collective bargaining issues are likely to play a role in implementation next year. Eight in ten districts report issues centered on financial concerns over the cost of class size reduction because less funds would be available for salary increases. Two of three districts indicated that workload concerns were raised by teachers in larger classes, by teachers in AM/PM kindergarten working longer days, and by teachers forced to complete staff development after normal school hours.
- **CSR teacher training is ad hoc.** Almost all districts indicated that they offer some training mandated by CSR. Larger districts offer the most comprehensive training. Indications are that many districts either have not focused on the training needed to optimize teaching in smaller classes or have not identified the core materials needed to provide this training.

Our analysis did not attempt to make recommendations for Legislative action; however, we did identify several policy issues that could affect the success of CSR. These issues are derived from the survey data, comments by responders, discussions with district personnel, and examination of media coverage of the initiative.

- **How many School Districts Ultimately Implement CSR?** Currently, over 90 percent of eligible districts participate to some degree in CSR. Collective bargaining, space constraints, teacher supply and potential funding issues may cause some districts to rethink their participation in future years.

- **Will Smaller Classes Produce Better Student Performance?** Improved student achievement in reading and math is a primary goal of this initiative. Lack of preparation for evaluation prior to implementation could reduce our ability to determine whether CSR is cost effective in achieving that goal.
- **Will Parent And Teacher Excitement Fade?** Parents and Teacher groups are excited about smaller classes. This could fade if other programs must be sacrificed or if teacher supply, facilities, and collective bargaining problems are not resolved.
- **Will Pressure Increase to Add Grade Levels?** There has been some push to move to smaller classes at additional grade levels even while many children remain in larger classes under the current program. Recently, some of the more aggressive efforts have cooled; however, pressure to add grade levels in the face of funding shortfalls could created negative backlash.
- **Will Pressure on School District Funds Erode Other Programs?** Softening the current 20:1 cap to allow for variation between schools could reduce the fiscal pressure facing schools. Nevertheless, at the margin there are school districts that are under fiscal pressure due to costs that exceed current incentive payments. Information about district costs is needed in order to refine policy about state funding.
- **Will Physical Space Constraints Prevent Equal Implementation Within School Districts?** About one in ten districts report that they have no space at any of their schools for two grade levels of smaller classes. Similarly, almost one in three indicate no space at four grade levels. Better information is needed about which schools are facing space constraints, and whether this will prevent school districts from fully and equally implementing CSR across each district.
- **Will Teacher Supply Increase Rapidly Enough to Prevent Bottlenecks?** Teacher shortages have occurred due to an increased demand for teachers in districts that implemented CSR this year. Fully implementing the current program, adding additional grade levels, meeting the needs of enrollment growth, and retirements will exacerbate this shortage. Further, there are serious questions about the quality and qualifications of teachers hired by many school districts. Staff development and staff support may need to be enhanced in order to assure that teachers are capable of teaching in smaller classes.

BACKGROUND

California's class sizes are among the largest in the country and its children perform among the worst on national reading and math achievement tests. The Governor and the legislature have created several programs over the last three years to remedy these deficiencies. One such initiative is the Class Size Reduction (CSR) program, enacted in July 1997, which provides funds to create smaller classes in California's elementary schools.¹ Since CSR's enactment, over 830 school districts implemented smaller classes for some or all of their children.

Table 1 below summarizes the key features of the Class Size Reduction (CSR) program. The State Department of Education (SDE)² reported that 851 school districts and 12 charter schools applied for operational funds. Forty-four school districts did not apply for CSR funds. These applications requested funds sufficient to reduce classes for 52 percent

Table 1: Summary of Class Size Reduction Program	
Purpose	To improve student achievement by reducing classes in early elementary grades to no more than 20 children for each teacher.
Grade Levels Affected	CSR program provides funding to reduce classes at up to three grade levels (kindergarten through third grade).
Priorities for Implementation	• First priority is first grade. • Second priority is second grade, and • Third priority is either kindergarten or third grade.
Options	• Option 1: Classes that do not exceed 20 children per teacher for the full instructional day. • Option 2: Classes that do not exceed 20 children for each teacher for at least one-half of the instructional day and that math and reading be taught during the part of the day that has 20:1 ratio.
Staff Development Requirements	Requires school districts to certify that they have provided staff development on the following topics: • Individualized instruction. • Effective teaching, including classroom management, in smaller classes. • Identifying and responding to student needs, and • Opportunities to build on the individual strengths of pupils.
Special Provisions	• Allows for continuation of early/late classes. • Allows for combination classes so long as they do not exceed 20 children per teacher. • Allows for short periods of instructional day that exceed 20 to 1, but requires that math and reading be taught in 20 to 1 class setting. • Allows school districts to obtain waiver to use 40:2 or 60:3 class settings during two year transition period. • Allows Charter schools to apply for funds separately from their school district.
Funding	• \$200 million in one-time funds to provide \$25,000 facilities grants to crowded schools. • \$771 million for operational funds: (1) \$650 per student for Option 1 classes, and (2) \$325 per student for Option 2 classes.
Deadlines	In order to qualify for operational funds for the current year, school districts must apply for CSR funds by November 1, 1996 and must implement smaller classes by February 16, 1997.

¹ The Class Size Initiative actually required three pieces of legislation. Chapter 163, Statutes of 1996 (SB 1777, O'Connell) established the program at three grade levels between K and grade three and provided funding for operation of the program. In addition, Chapter 164, Statutes of 1996 (SB 1789, Greene) provided one-time funds for facilities grants, and Chapter 621, Statutes of 1996 (SB 1414, Greene) amended SB 1777 to make clarifying changes to the program.

² State Department of Education, "Eastin Updates Progress on Class Size Reduction - 95 Percent of Eligible School Districts are Participating," Press Release, December 2, 1996.

of the projected Fall 1996 K-3 enrollment. Of these children, 97 percent were in Option 1 (see Table 1) classes. Based on applications, 17 percent of kindergarten children, 92 percent of first graders, 74 percent of second graders, and 23 percent of third graders were in smaller classes. More recently, 15 school districts that applied for operational funds notified the SDE that they chose not to implement CSR in the current year.

Reasons for not implementing CSR. Forty-four school districts of 895 statewide declined to apply for operational funds although all were eligible for funding. All but four of these districts had fewer than 1,000 children. Modesto City Elementary School District was the largest with about 18,000 children. The SDE surveyed these districts and found that most of these districts already had classes with fewer than 20 children. Further, many of these districts did not know that they would qualify for CSR funds.

Modesto's situation is somewhat unique. It declined to participate, despite significant public interest in smaller classes, because its collective bargaining agreement placed substantial demands on its budget. Nevertheless, the district has negotiated changes in its agreement with teachers. Specifically, the teachers union agreed to reduce its COLAs in future years to offset CSR costs that exceed the amount of state CSR operation grants, and to eliminate contract language ensuring that 62 percent of most district funds would be allocated to teacher compensation. Modesto has indicated that it will participate in the CSR program next year at the first grade level (and at second grade for a few schools).

Finally, 15 mostly very small school districts applied for implementation funds, but had second thoughts about actually implementing smaller classes. These school districts had a variety of reasons for declining to implement CSR. For example, Menlo Park City Elementary in San Mateo County, one of the largest of the 15, already had class sizes below 25 in its K-3 grades and did not believe the cost of further reductions would generate concomitant benefits. Another district, the Dunham Elementary School District in Sonoma County, also had small classes. Its decision not to implement smaller classes was driven by parents who were concerned that classified personnel who provide a variety of enrichment programs such as art, music and Spanish language instruction, would be lost.

Legislative Analyst's Office Policy Brief. In December 1996, the LAO and the SDE surveyed 200 school districts.³ The LAO/SDE survey elicited information on three main issues: (1) costs of CSR; (2) teacher qualifications and availability; and (3) facilities. Their report identified four major findings:

- School districts are creating smaller classes with an average of 18.8 pupils per class. This results in an average cost of \$770 per child, or 21 percent higher, than if classes contained an average of 20 pupils.
- School districts report that their CSR implementation costs range from \$0 per pupil to about \$1,000 per pupil.

³ See Appendix A for a description of the survey methodology.

- Teachers hired for CSR are, on average, less skilled and are less qualified than teachers hired in past years.
- School districts are running out of low-cost facilities options to house smaller classes.

Based on these findings, the LAO made five recommendations:

- Increase flexibility in the 20:1 cap so that classes average 20 children but can range up to 22 children per class.
- Delay expanding the program to a fourth grade level for one year but earmark \$100 million of 1997-98 funds for expansion to a fourth grade in 1998-99.
- Increase flexibility in the use of teachers hired under the CSR program so schools can use other proven educational strategies and avoid some potentially negative, unintended outcomes from the CSR program.
- Provide new Proposition 98 funds to districts in their district Revenue Limits rather than in CSR per-pupil amounts (i.e., not earmarked for CSR).
- Allow \$52 million of 1997-98 Goals 2000 (a federal education reform initiative) funds to be used for CSR staff development rather than Reading Initiative staff development as is currently proposed.

CALIFORNIA RESEARCH BUREAU STUDY

Last December, the Governor's Office of Child Development and Education requested that the California Research Bureau (CRB) also study the early implementation of CSR. This request was made after the LAO/SDE survey had been sent out. Therefore, as a supplement to the LAO/SDE survey, we surveyed the same 200 school districts, but focused our efforts on implementation issues not addressed in the first survey. Specifically, the CRB survey examined seven issue areas:

- The availability of space for smaller classes;
- Collective bargaining problems;
- School district CSR staff development;
- The choice of reducing class size in kindergarten or third grade;
- The use of early/late and combination classes;
- School district CSR policy decisions; and

- The coordination of categorical funds.

We received 160 responses representing 51 percent of total statewide K-3 enrollment.⁴

Are There Facilities Issues in School Districts That Would Prevent Further Implementation of CSR?

The LAO report indicated that school districts have exhausted most of the low cost options for creating classrooms in the current year. The LAO also suggested that future year costs for facilities would be a major factor. Our survey asked several questions about facility costs and space constraints.

Do school districts have physical space constraints? We asked school districts, "If funding were not an issue, would your district have the physical space at each school site to build additional classrooms or place portables in order to have smaller classes?" Table 2 provides a summary of the responses to this question. Fifty-nine percent of school districts responded that they had space at all school sites, while nine percent responded that they had no space at any school site to accommodate just two grade levels of smaller classes. Forty-nine percent of school districts responded that they had space at all school sites, while 14 percent responded that they had no space at any school site to accommodate three grade levels. Finally, 38 percent of respondents report space available at all school sites, and 24 percent report no space at any school site to accommodate an expansion to four grade levels.

Small school districts are much less likely to report physical space problems, while the largest districts are most likely to experience such problems. Over 80 percent of the smallest school districts reported that they have space available at all sites for all grade levels surveyed. One half of the largest school districts, on the other hand, reported that all school sites have physical space for two grades of smaller classes. Fourteen percent of the largest school districts reported that they have physical space available at all school sites to accommodate smaller classes at four grade levels. Mid-size school districts exhibited a pattern of space availability comparable to, but more severe, than the largest districts.⁵

⁴ All references to number of respondents or percentage of the sample refer to school districts unless specifically stated. In addition, some school districts did not answer all questions; therefore, some questions have fewer than 160 responses. In other cases, questions have fewer respondents than our overall response because responses to specific questions are contingent upon the response to an earlier question.

⁵ The only exception to these trends is for school districts with fewer than 5,000 children. At two grade levels, more of these schools report space problems at all schools than do school districts with more than 5,000 children.

Table 2: Responses to the question, "If funding were not an issue, would your district have space available at each existing school to build additional classrooms or place portables in order to have smaller classes?"

	2 Grade Levels[†]		
	No Schools	Some Schools [‡]	All Schools
Largest 50	5%	45%	50%
5,000-20,000	8%	44%	47%
1,000-5,000	15%	26%	59%
Under 1,000	10%	3%	86%
Total	9%	32%	59%
	3 Grade Levels[†]		
	No Schools	Some Schools [‡]	All Schools
Largest 50	10%	62%	29%
5,000-20,000	19%	47%	34%
1,000-5,000	19%	28%	53%
Under 1,000	10%	3%	87%
Total	14%	37%	49%
	4 Grade Levels[†]		
	No Schools	Some Schools [‡]	All Schools
Largest 50	24%	62%	14%
5,000-20,000	33%	42%	24%
1,000-5,000	26%	34%	39%
Under 1,000	10%	7%	83%
Total	24%	38%	38%

[†]Totals may differ from 100 due to rounding.

[‡]"Some schools" is a combination of responses to "few" or "most" schools in the survey.

Physical space constraint is an issue. For example, Compton Unified School District implemented CSR at only the first grade. This district buses a significant number of children from overcrowded schools in the eastern part of their district to schools in the western part of the district. At least one east-side school in Compton is "landlocked." This school is on a small property that is surrounded by streets and private residences. Two other elementary schools in the same part of the district have more than 1,000 children each.⁶ Adding a second grade of smaller classes will force a major reorganization of schools in the eastern part of the Compton school district and require additional busing.

San Diego Unified School District reported that reducing classes in the first and second grades left the district without space for smaller classes at additional grade levels. Other school districts report similar space problems. Most school districts reported that they can accommodate more children, but not at all school sites. Additional CSR implementation cannot be accomplished at these sites, while retaining the concept of neighborhood schools.

⁶ Schools of this size may become unmanageable if additional children are added to these campuses.

How much are school districts planning to spend on facilities in 1996-97 CSR implementation? We asked school districts to report one-time 1996-97 CSR facilities costs. Using a combination of their responses to our survey and reported 1995 K-3 enrollment data, we estimate statewide one-time costs for CSR related facilities for 1996-97 at \$406 million. Of this amount, the 50 largest districts combined allocated about \$188 million, while the smallest districts combined allocated about \$11 million. School districts with more than 5,000 children allocated about \$330 million of the \$406 million.

How much do school districts estimate they will spend for full implementation of CSR at four grade levels? We also asked school districts to report their estimates of total one-time costs for CSR related facilities expenditures in order to implement smaller classes at four grade levels. We estimate expenditures of \$1.1 billion for full implementation of CSR at four grade levels.⁷ The largest districts project \$424 million and the smallest districts project \$24 million for full implementation at four grade levels. School districts with more than 5,000 children account for the bulk of these projected expenditures totaling \$846 million.

Did School Districts Experience CSR Related Collective Bargaining Problems?

All but the smallest school districts are subject to collective bargaining statutes. Some school districts have developed relatively informal procedures for making changes in agreements in order to implement major initiatives such as CSR. Other school districts were forced to engage in formal discussions to change their bargaining agreements in order to implement major initiatives such as CSR.

Did collective bargaining problems significantly impair CSR implementation? One in four districts in our sample indicated that collective bargaining issues made CSR implementation difficult. The degree to which collective bargaining was an issue varies with the size of the school district. Forty-two percent of the largest districts and 24 percent of the larger mid-sized districts reported bargaining issues affecting implementation. In contrast, only 9 percent of the smallest districts reported such issues.⁸

Roughly half of school districts that responded to our survey indicated that they expect to see a variety of collective bargaining issues during the next school year due to CSR. Districts most likely to see problems next year are those districts with between 5,000 and 20,000 children (62 percent report that expectation). Forty-eight percent of the largest districts and 19 percent of the smallest districts also report that they are likely to see bargaining issues next year.

⁷ This estimate includes the \$406 million in 1996-97 allocations discussed in the previous paragraph.

⁸ One small district reported that it was exempt from collective bargaining due to its small size. This may account for the small number of small districts that report problems when compared to larger districts. Smaller districts also may be more adroit at working with their employees in ways that avoid or more easily resolve bargaining issues.

What Collective Bargaining Issues Did School Districts Report? School districts who report collective bargaining as a significant issue for CSR implementation identified a variety of issues. These include issues related to financing, equity, workload, and preparation time.

Financial Concerns. Eighty percent of school districts that reported collective bargaining issues indicated that financial concerns were a factor in implementation of CSR. Overwhelmingly, their main concern was that the cost of implementing CSR would reduce the pool of funds that otherwise would be available for salary increases.

Equity Concerns. Two-thirds of school districts that reported collective bargaining issues indicated equity concerns. The main issue identified by districts was that teachers at grade levels with larger classes (primarily at higher grades within the affected elementary schools) complained that their workload was higher than teachers assigned to smaller classes. A related issue centered on kindergarten teachers who were concerned that moving to AM/PM kindergarten configurations would increase the length of their workday.

Workload Concerns. Fifty-eight percent of districts reporting collective bargaining issues identified workload issues related to staff development, and planning meetings, as a factor in their decision to implement CSR. Staff development funding is complex. Many districts found that they had to provide training after school hours and on weekends. In part, this was due to a lack of substitute teachers and, in part, to the number of staff development demands caused by CSR, Reading Initiative and other initiatives that required training. In some cases, districts were required to negotiate salary supplements for teachers for the longer days or weeks that they trained during "off hours."

Prep Time Concerns. Fifty-six percent of school districts reporting collective bargaining issues identified prep time as a collective bargaining issue. Prep-time for teachers is complicated. Many school districts negotiate prep-time for teachers to be away from class -- 180 minutes per week is typical. During this time, children have physical education, art, or music classes that are taught by specialists. Districts fund such activities out of their General Fund budgets. The CSR initiative added new teachers, and, thus, school districts were required to provide prep-time to more teachers. This additional prep-time required both additional specialists and space at schools. Consequently, districts are now faced with additional costs to pay for specialists, while the schools are faced with the problem of making room for additional prep classes.

Other Concerns. Respondents identified several other collective bargaining issues. In particular, a variety of so-called "working conditions" issues emerged. One issue noted was that teachers in larger classes were demanding procedures (often called bumping provisions) for moving to smaller classes. Another issue involved the adequacy of space for smaller classes, such as: the use of temporary rooms; the use of facilities not designed for teaching; or the use of portables (which some teachers consider inferior to regular classrooms).

Some districts indicate that they have been subject to grievance filings by special education

teachers. Typically, these grievances concern space that is not suitable for such instruction. Other districts have received complaints from teachers who were required to teach combination classes. Many teachers consider combination classes inferior to single grade classes. Finally, some teachers have expressed concerns about sharing classroom space.

What Did We Learn About Professional Development?

SB 1777 requires that school districts certify that they have provided their teachers with training on how to optimize instruction in the smaller class format. This is important because many researchers suggest that reducing class size alone is not sufficient in itself to improve student achievement. While SB 1777 specifies certain topics that must be included in staff development training, most researchers are less sure about the most successful techniques by which to organize and manage smaller classes.

Did districts provide training on all the required topics? Districts, categorized as among the 50 largest, provided the most comprehensive training. Respondents in this group indicated that they all offered training on five or more topics. This compares to 29 percent of districts in the smallest group. Almost all of our respondents indicated that they offered staff development training in most, if not all, of the SB 1777 "a" through "d" requirements.⁹ In addition to the SB 1777 topics, most districts also indicated that they were providing training in the "a" through "m" requirements outlined in the California Reading Initiative and Goals 2000 legislation.¹⁰

What strategies did school districts use to deliver required staff development? Our survey listed a number of staff development strategies such as Mentor Teachers, or outside consultants. We asked the districts in our sample to identify which of them they used. Large districts were much more likely to use multiple strategies to deliver training. For example, nine out of ten of the largest districts employed five or more strategies, while one-third of the smallest districts did so. Large districts used all the strategies we identified about equally.¹¹ Small districts focused on the use of grade level meetings, classes offered by their county office of education, and teacher partnering as preferred

⁹ SB 1777 requires that school districts certify that they have provided staff development training to all personnel teaching in smaller classes. The legislation identifies four specific topics: (a) individualized instruction, (b) effective teaching in smaller classes, (c) identifying and responding to pupil needs, and (d) opportunities to build on the individual strengths of pupils.

¹⁰ Both Chapter 196, Statutes of 1996 (AB 3482, Davis) -- the California Reading Initiative -- and the Goals 2000, Educate America Act of 1994 (PL 103-277) have similar, detailed lists of topics considered important for development of an effective reading program. These topics include systematic, explicit phonics instruction; phonemic awareness; decoding and word attack skills; diagnosis of reading deficiencies; and spelling instruction.

¹¹ Among the strategies we identified in the survey were; Mentor Teacher programs, peer coaching, grade level meetings, teacher partnering, and training by consultants.

methods.¹²

What was the content of the training? Many districts provided us with outlines of their staff development offerings related to CSR training. Examination of these documents suggests that while the "a" through "d" requirements of SB 1777 are noted in many of the district outlines for CSR staff development, the actual content of district training courses seems heavily weighted toward improving student reading and math (i.e., focused on the Reading Initiative training). Discussions with school district personnel suggest that districts either have not focused as much on the skills needed to optimize small class teaching, or have not identified the core materials needed to prepare teachers for teaching in smaller classes.

How much training did school districts offer their teachers? Our survey asked school districts whether they provided different amounts of CSR related training to new or experienced teachers. Fifty-seven percent of all school districts indicated that they differentiate their staff development training based on the experience or needs of their teachers. There were marked differences, however, between the largest and the smallest districts in the extent to which this occurs. Eighty percent of the larger districts (those with more than 5,000 children) differentiate training by teacher experience, while half of the districts with between 1,000 and 5,000 children, and 17 percent of the smallest districts, offered such training.

Our survey also examined the amount of CSR related training that school districts offered experienced and new teachers. We found very little difference in the average amount of training provided to teachers in districts with more than 1,000 children. School districts typically provide new teachers, and teachers from other districts, with the greatest amount of training -- 42 hours and 32 hours on average respectively. Our survey found that, unlike larger districts, the smallest of districts provided their most experienced teachers with the greatest amount of training -- an average of 31 hours.

These data show that most districts provide experienced teachers three to four days of training, and new teachers an additional two to three days this year. New teachers often receive this type of training before the opening of school. Discussions with district personnel, and review of materials submitted with survey responses, indicate that new teacher training generally emphasizes school district orientation and basic classroom management skills. This training typically did not emphasize CSR requirements.

Districts offering all teachers the same staff development training provided about 23 hours of training. The largest and the smallest districts offered fewer than 20 hours of staff development training. Larger mid-sized and smaller mid-sized districts provided an average of 33 hours and 27 hours of training, respectively.

¹² Grade level meetings involve all teachers at a given grade level getting together regularly to discuss a variety of issues including teaching techniques, and specific needs or approaches to take with a child. Teacher partnering is similar to a Mentor Teacher in that a more experienced teacher will work with a less experienced teacher to provide support and guidance.

How do these data compare to the LAO's data? The LAO Policy Brief reports that many school districts were experiencing problems implementing the staff development requirements of SB 1777. Specifically, they found that seven in ten districts had insufficient substitutes, about half reported insufficient funds to provide training, and about half reported insufficient time to provide the required training. In addition, one in ten school districts reported that they could not provide, from their current list of training courses, programs that fulfilled the "a" through "d" requirements of SB 1777. Districts with more than 5,000 children were more likely to report these problems than smaller districts.

The fact that we identified significant amounts of training is not necessarily at odds with the LAO findings. The staff development training reported by our respondents is taking place in a variety of ways. Some training, particularly that given to new teachers, occurred before schools opened in the fall. Districts also are providing training during staff development days when children are not in school (which may supplant other activities teachers would have pursued in these days), while other districts are providing training during after-school hours and on weekends. This latter approach reduces the need for substitutes or special staff development days, and provides additional time for the required training.

Such approaches to staff development training, however, have become collective bargaining issues for some districts. We discuss these issues below. In addition, while only ten percent of districts responding to the LAO/SDE survey reported that they were unable to find CSR specific courses, our discussions with districts indicate that some training materials that were used did not provide the expected training.

Choosing to Implement at Three Grade Levels

Under SB 1777, school districts can receive funds for smaller classes at up to three grade levels. School districts applied for funds sufficient to place 20 percent of kindergarten and third grade children in smaller classes. A number of factors affected school district decisions to implement beyond two grade levels.

How many school districts chose to implement beyond two grade levels? Ninety-nine out of 159,¹³ or 62 percent, of our respondent districts report that they will implement CSR at three grade levels.¹⁴ Our data suggest that smaller school districts are much more likely to implement at three grade levels than are the 50 largest school districts. Our survey also found that 82 percent of the smallest districts plan to implement at three grade

¹³ The number of respondents is 159 because Menlo Park City Elementary School District responded to the survey but did not answer most questions. They were included in our survey because they applied for operational funds despite the fact that they later decided not to implement smaller classes in the current year.

¹⁴ While 62 percent of our respondents report implementation at three grade levels, not all of these districts have 100 percent coverage at all three levels. In addition, some large districts have implemented at only one or two grade levels. Therefore, the percentage of districts does not necessarily conflict with the 52 percent of K-3 students data from the State Department of Education (SDE).

levels while only 45 percent of the largest districts plan to do so. Two factors appear to drive this decision: (1) the availability of facilities; and (2) the ability to find qualified teachers.

In some instances, school districts indicated that they would be doing a partial implementation at both kindergarten and third grade. This occurs because one or more schools in the district may have an opportunity to shrink classes at kindergarten while other schools within the same district have an opportunity to shrink classes at third grade, or because individual school sites express different needs.

One example of this approach is Long Beach Unified School District. Based on data received from the State Department of Education (SDE), all Long Beach students are in smaller classes at grade one, and about two-thirds of their students are in smaller classes at grade two. (A small number of classes use Option 2.) Forty percent of Long Beach kindergarten children are in smaller classes, while only 10 percent of Long Beach third grade children are in smaller classes.

Typically, however, when school districts report partial implementation at both kindergarten and third grade, it is because the district has created combination classes (those that contain children at more than one grade level such as K-1, 1-2, or 2-3) that include children who are either in kindergarten or third grade. The availability of facilities and/or the need to form groups of 20 appear to be primary motivations for the creation of these combination classes using either K-1 students or grade 2-3 students.

Did educational benefits of kindergarten or third grade affect expansion beyond first and second grades? In December, the SDE reported that 17 percent of kindergarten students and 23 percent of third grade students would be in smaller classes this year. Our survey asked school districts implementing smaller classes at three grade levels to identify the extent to which specific factors played a role in their decision to implement at either kindergarten or third grade. Twenty-two of 97 respondents, or 23 percent, indicated that they believe the benefits of smaller kindergarten classes to be a major consideration. Forty-six of 97 respondents, or 47 percent, ranked the benefits of smaller third grade classes to be a major factor. We compared these school districts to their operational grant applications and found that their implementation plans were consistent with their ranking of relative benefits. Specifically, if a district ranked benefits higher for kindergartners, they tended to implement at that level; likewise, if they ranked third grade higher, they implemented at third grade.

Four school districts ranked the benefits of both kindergarten and third grade as major factors in their decision. In one case, Beverly Hills Unified, the district chose to implement at third grade. In another case, Live Oak Elementary chose to implement at kindergarten. The remaining two districts, Long Beach Unified and El Monte City

Elementary, created some smaller classes at each grade level.¹⁵

Respondents that ranked educational benefits of kindergarten or third grade as a major factor in their decision to implement CSR at either kindergarten or third grade also typically cited a variety of other reasons for their decision. Many of the respondents indicated that pragmatic considerations dictated their choice as much as educational benefits. For example, some districts mentioned facilities issues, distribution of children among the grade levels, and movement to AM/PM kindergarten¹⁶ (where children typically have two teachers for, at least, part of the school day). A few districts seem to view AM/PM kindergarten -- with two teachers and up to 30 children -- as one alternative for gaining educational benefits and, allowing those districts to reduce class size at the third grade.

Comments by some respondents suggest a divergent set of views about the relative merits of smaller kindergarten or third grade classes. Several respondents cited the educational benefits of smaller third grade classes and indicated that reducing classes at this grade level would provide an additional, or perhaps a last, chance to help poor readers. One respondent ranked third grade higher and cited the belief that kindergarten was "developmental," while third grade was academic. Several respondents, who cited the educational benefits of a smaller kindergarten, mentioned a need for early intervention. This bifurcation of responses reflects the importance of pragmatic decisions by some districts about CSR implementation this year, including the desire to make one last effort to remediate poor readers, or a determination regarding availability of facilities.¹⁷ It also reflects a dichotomy in the beliefs among administrators about whether kindergarten is primarily academic or primarily socialization (or developmental).

Were other factors important in school district decisions to implement CSR beyond first and second grades? Sixteen percent of districts identified lower cost of kindergarten implementation as an important factor in their decision to implement CSR, while 33 percent identified other facilities issues as important factors. In addition, 40 percent of districts report that they were likely to consider staff opinion as a major factor.

¹⁵ Long Beach and El Monte appear somewhat unusual among large school districts in the degree to which they allowed school sites to make decisions regarding CSR implementation. Most school districts appear to have used a more centralized process for deciding on whether to use Option 1 or 2 and about which grade levels to make smaller.

¹⁶ AM/PM kindergarten means that one group of children attends class in the morning and a different group attends class (in the same room) in the afternoon. The effect is to use the room twice. In addition, school districts have the AM and PM teachers overlap so the effective pupil-teacher ratio is smaller.

¹⁷ While remediation of poor readers is laudable and may confer long-term benefits for some children, the literature suggests that early intervention and smaller classes in kindergarten and first grade could eliminate or sharply reduce the need for this kind of remediation. See Illig, David C. "Reducing Class Size: A Review of the Literature and Options for Consideration," California Research Bureau, June 1996, for a discussion of the project STAR findings for kindergarten and first grade. Also see Diamond, Linda and Mandel, Sheila, "Building a Powerful Reading Program: From Research to Practice," Internet posting CSU Institute for Education Reform, circa 1996, for a discussion of the research as it relates to the need for reading programs to begin in preschool or kindergarten. At a minimum, the kind of third grade intervention likely would change if reading programs began in preschool and kindergarten.

This exceeds the 21 percent of districts that cited community opinion. District administrators, however, clearly consider parent wishes. In fact, some districts changed their CSR implementation plans in response to community input.

How Did CSR Affect the Use of Certain Class Configurations?

Our survey examined the use of two instructional strategies that affect either the school day configuration or the mixing of children at different grade levels. Both of these strategies are important because of their potential effect on educational outcomes independent of class size.

Did school districts reduce their use of early/late classes? One strategy that schools use to reduce class size for reading is to use an early/late class structure. In this configuration, one half of the students in a class come to school -- usually one hour -- before the arrival of the other half of the children. The "late" children, who arrive one hour later remain for one hour after the "early" students leave. The result of this structure is that teachers are able to achieve a smaller class for about one hour per day for each group of children. Teachers typically use this time for reading instruction. Some studies have shown that this approach increases achievement gains.¹⁸

Thirty-two of our respondents indicated that they used early/late classes in more than 360 schools. Early/late classes were much more prevalent in larger school districts. Six percent of the smallest districts and 15 percent of the medium-sized districts reported using early/late classes, while 41 percent of the largest districts reported using this strategy.

We found that 78 percent of the largest districts, and 83 percent of medium-sized districts, retained early/late classes when they implemented smaller classes. For the districts that dropped early/late classes, the most common reason given was that placing children in smaller classes for the entire day eliminated the need for the configuration. One district indicated that their decision to drop early/late classes was controversial among teachers. In another instance, these classes were dropped due to collective bargaining issues and "...early direction from Sacramento."¹⁹

The remaining districts with early/late classes either did not eliminate them at all, or they dropped classes at some schools, while retaining them at others. Further, six districts indicated that they implemented early/late classes in grade levels not affected by their CSR implementation. In at least one case, however, the respondent indicated that their early/late class was an AM/PM kindergarten program.

¹⁸ Balow, I. H., "A Longitudinal Evaluation of Reading Efficiency," 46 *Elementary Education* (1969), as discussed in Douglas Mitchell, et al, "How Changing Class Size Affects Classrooms and Students," California Educational Research Cooperative, University of California, Riverside (May 1989).

¹⁹ SB 1777 was ambiguous regarding whether certain school districts could retain early/late configurations. SB 1414 clarified this and gave specific authorization to continue; however, the policy may have been enacted too late to help this particular district.

Did school districts use combination classes? Almost all schools used combination classes before CSR (140 of 159 respondents), and all but nine respondents retained combination classes following its implementation. Six percent of school districts dropped combination classes. The basic reason for retaining combination classes after CSR was the need to form the required groups of 20 or fewer children. One hundred ten of 159 responders, or 69 percent, indicated such a consolidation. A smaller number of districts (44 of 159, or 28 percent) also reported that combination classes were a preferred instructional strategy.

How Did School Districts Respond to News About the CSR Initiative?

Our survey asked three questions designed to develop a better understanding about how school districts made the decision to implement CSR.

When did school districts begin planning for CSR? Fifty-five percent of school districts reported that they began planning for CSR last July, while an additional 15 percent began planning last August. Seven, or 4 percent, of reporting districts indicated that they began planning for CSR as early as February 1996 when SB 1414 (Greene) was introduced. At least one of these districts -- San Francisco Unified -- was already engaged in developing a plan to implement smaller classes at grades K-3 before the introduction of SB 1414.

Some school districts were hesitant to implement CSR, but did so in response to public demand. One example is Kentfield Elementary in Marin County. This district, which had relatively small classes, initially chose not to implement CSR. However, pressure by parents pushed the district to reduce classes in K-2. Space considerations led the district to use Option 1 funds for kindergarten and first grade and Option 2 funds for second grade.

Another example of pressure by parents was at the Cupertino Union Elementary in Santa Clara County, which chose to implement CSR using Option 2. This district chose to replace early/late kindergarten classes with AM/PM kindergartens and to use 40:2 pupil/teacher class configurations as part of their current year implementation. Parents at several Cupertino schools organized to oppose these choices. Their concerns centered on the loss of a popular kindergarten configuration, and on whether 40:2 configurations would improve achievement. Parents also expressed concerns about crowding in the AM/PM kindergarten classes and in the 40:2 first grade classrooms.²⁰ Recent reports indicate that this pressure has led the district to retain the favored kindergarten class configuration, to use 20:1 first grade classes, and create 20:1 half-day second grade classes. The 40:2 first grade class configurations are now optional.²¹

²⁰ "Parents fight district plan for 40-2 ratio in first grade," *The Cupertino Courier*, December 18, 1996.

²¹ "WestEd Class Size Reduction Update," e-mail distribution, WestEd, San Francisco (March 12, 1997).

What do school boards require of district personnel before approving smaller classes? Our survey showed that school boards were most concerned about the impact of CSR on their budgets. About two-thirds of the districts in our sample indicated that their school boards required an analysis of current year operational costs before approving CSR. Over 60 percent of school boards also required personnel to develop estimates of one-time facilities costs, along with future year operating costs. Our data also show that nearly half of reporting districts were required to do an analysis of the educational benefits of smaller classes before authorizing implementation.²²

A few school districts report that their school boards required other information before approving smaller classes. Among the information required by school boards was: the need for community input; availability of qualified teachers; physical space and facilities availability at all schools; implications for collective bargaining; effect on other programs; and effect on desegregation programs.

Do School Districts Coordinate²³ Funds From Various Sources to Maximize Their Programs?

Many school districts receive funds from a variety of categorical programs in addition to their regular base subventions. These programs include: federal Title I and Goals 2000, the California Reading Initiative; state economic impact aid (some of which is used for Limited English programs); state desegregation aid; and state and federal Special Education programs. There are two reasons why this is important. First, a district can use these funds to help offset the costs of the CSR initiative. Second, a district can use such funds to create a more effective education program without regard to CSR.

Some districts have used various categorical funds to create smaller classes prior to the CSR initiative. Many districts are now using them to help offset the costs of the CSR initiative. Other districts are using such funds to implement systemic reform²⁴ initiatives that may improve student performance. For example, Modesto City Elementary implemented Success for All and Reading Recovery programs.²⁵ The additional expense of these programs is funded via Title I and other categorical funds.

²² The school districts responding to this question did not provide detail as to what benefits they found beyond a few general comments by district personnel that stated smaller classes were good and needed to be implemented.

²³ In this context, coordinating funding means that a school district sets spending policy for each program so as to maximize the contribution for each funding stream and to achieve strategic goals that are broader than those set for individual programs. Alternatively, a school district could set narrow goals for each program, separate from the district's larger efforts.

²⁴ Systemic reform programs refer to a set of school-wide reform initiatives designed by education researchers to improve student achievement. These programs share a number of features such as goal setting, results-based accountability, parent and community involvement, and high expectations for children, faculty and staff.

²⁵ Success for All is a specific systemic reform program that uses pull-out tutoring, continuous quality improvement processed, family resource centers and preschools in a linked effort to improve achievement. Reading Recovery is a specific first grade tutoring program for children who are slow to develop reading skills.

Reading Initiative Funds. Eighty percent of our survey school districts reported that they receive Reading Initiative funds, and that these funds are coordinated with CSR. This should not be a surprise given parallel policy discussions that occurred during the 1996-97 budget season, and recent emphases on improving reading. It is especially noteworthy, however, that 20 percent of school districts that received Reading Initiative funds reported moderate or little coordination of these funds with CSR. Sixty-two percent of small districts reported that they exercised a great deal of coordination between CSR and Reading Initiative funds, while 20 percent of these districts reported either that they did not coordinate these programs, or that they did not receive Reading Initiative funds.

Title I Funds. Eighty-eight percent of the school districts in our sample reported that they received Title I compensatory education funds. School districts receive these funds based on the number of low-income children enrolled in their schools. The Improving America's Schools Act of 1994 requires certain schools to develop plans to increase the coordination of all funds available to the school in order to make their education programs more effective. Nevertheless, only 33 percent of the districts in our sample indicated that they received Title I funds, and that they exercise a great deal of coordination of those resources with CSR. More than nine percent of school districts reported that they did not coordinate Title I funds CSR.

Other Categorical Program Funds. Many school districts receive other categorical funds that could be coordinated with CSR, or other funding streams, to increase the effectiveness of programs targeted at at-risk children. School districts in our survey reported varying rates of participation in these programs.

For example, 90 percent of the school districts in our sample received special education funds, 85 percent received limited English funds (through the Economic Impact Aid program), 39 percent received Healthy Start funds, and 19 percent received desegregation funds. School districts that received Special Education and Healthy Start funds were less likely to coordinate these funds with CSR than was the case for Reading Initiative and Title I funds. For example, one-fourth of districts that received Special Education funds exercised a high degree of coordination, 62 percent exercised moderate to little coordination, and 13 percent reported no coordination. On the other hand, a higher proportion of districts reported that they coordinated Limited English and Desegregation program funds to a high degree -- 39 percent and 33 percent, respectively. One-half of school districts reported moderate to little coordination of Limited English funds, and one-third of districts reported moderate to limited coordination of desegregation funds.

Our survey suggests that school districts vary significantly in the degree to which they coordinate categorical funds with CSR funds to maximize benefits for children. These results suggest that some school districts may be missing opportunities to develop more effective education programs.

Summary

Our review of the LAO report and the analysis of our data indicate that school districts made substantial efforts to implement the Class Size Reduction program in a very short time. Recent field visits confirm this. Nevertheless, our analysis suggests that CSR continues to be a work in progress. Problems have cropped up statewide, while other problems are district-specific. These problems affect school districts in different ways and could affect the entire effort to reduce class size if not addressed. The most pressing problems our survey revealed were in the areas of facilities constraints, collective bargaining and staff training. The next section identifies some issues that may surface during the current legislative session.

POLICY ISSUES

Numerous issues have developed during implementation of the CSR program. This section examines a number of these issues, and how they that may need to be addressed during the current legislative session.

How Many School Districts Ultimately Will Implement CSR?

The Class Size Reduction initiative is not a mandate. Nevertheless, 851 of 895, or 95 percent, of eligible school districts applied for funds to reduce classes at one or more grade levels. Of the 44 districts that declined to apply for funding in the current year, Modesto City Elementary School District was the largest with about 18,000 children. All but three of the other schools had enrollments under 1,000. Modesto City Elementary School District declined to implement because they were concerned about how CSR would affect their budget in future years. The district indicated that it now plans to implement CSR in the fall of 1997. This change appears to be the result of community pressure and an agreement with its collective bargaining unit on modifications to the district's contract. A phone survey by SDE of the 44 districts that did not apply for funds found that about 40 percent of these school districts will apply for CSR funds next year.

It is less clear whether the 15 school districts that declined to implement CSR after applying this year will choose to apply again next year. In addition, it is possible that some districts that implemented this year will find it difficult to continue the program due to fiscal constraints. Some districts have expressed this fear.

A better understanding of this issue requires additional analysis of school district projections of future year CSR costs. To that end, School Services of California is surveying school districts using a computerized budgeting tool that is designed to isolate and identify current and future year CSR operating costs. Their database should be available later in the spring and should inform the discussion about how much districts are actually spending on CSR.

Will Smaller Classes Produce Better Student Performance?

Improving student achievement and reducing California's very large average class sizes were the primary reasons for the CSR initiative. The Tennessee study of smaller classes -- Project STAR -- was the primary evidence for improved student achievement that was relied upon by policymakers during CSR development. The CRB and LAO/SDE surveys did not examine (it is too premature to do so) whether student achievement has improved. Teachers we interviewed are convinced that children in smaller classes are demonstrating better achievement outcomes than was true in larger classes. District administrators are more ambivalent, but also appreciate smaller classes.

Given the amount of funding allocated to this initiative, it ultimately will be necessary that the state conduct a comprehensive evaluation of the CSR initiative to clearly understand its impact. Such an evaluation, however, will be difficult. First, program implementation did not include support for a high quality evaluation. Second, since other state and local initiatives have been implemented at the same time as the CSR initiative, isolating the effects of CSR will be difficult.

Many researchers, including the Project STAR researchers, stress that smaller classes, organized and taught using the same techniques as those used in larger classes, are less likely to produce significant achievement gains. Some administrators have indicated that they were unable to find materials on small class instruction and management. Other school districts have expressed disappointment with the SB 1777 courses that are available, and, thus, have developed their own materials. Comments and concerns raised by respondents to our survey suggest a need for assessment of courses currently in use. In addition, school districts could benefit from the development of "best practices" documents and technical assistance programs.²⁶

Will Public and Teacher Excitement Fade?

Teachers who teach in smaller classes are excited. Teachers who teach in classes at grade levels that are not affected by smaller classes, however, appear to have mixed feelings about smaller classes. Some want smaller classes; and some accept their present situation because they believe that in future years they will see better-prepared children.

The press has reported that parents are excited about smaller classes. In some cases, parents have decided to move their children from private schools to local public schools. Nevertheless, there is evidence of dissident parent groups. As mentioned above, parent groups in Cupertino have been active in opposing the school district's original implementation plan. Another group at Dunham Elementary School District succeeded in getting the district to forgo implementation after an initial decision to implement CSR

²⁶ Some of these activities may be underway. For example, the State Board of Education is considering providing funds for an assessment of materials available in this area. Also see, "WestEd Class Size Reduction Update," e-mail distribution, WestEd, San Francisco (March 12, 1997) for a brief discussion of two other efforts currently underway. At this time, however, it is not possible to assess whether these efforts will provide the needed information.

because they did not want to lose certain special classes.

The Class Size Reduction initiative is new. It has significant support, yet it has put various pressures on school districts. How school districts relieve these pressures will determine whether CSR is a success for teachers and parents beyond the current year.

Will Pressure Increase to Add Grade Levels?

The pressure to add grade levels is high. The Governor proposed funding in his 1997-98 budget to add a fourth grade level. Parents in some school districts are expressing a desire for smaller classes at additional grade levels. Senator Jack O'Connell has introduced legislation that could add a fifth grade level. The California Teachers Association has funded a media campaign advocating a need to consider smaller classes at all grade levels from kindergarten through high school.

Aside from these efforts, it is reasonable to consider the cautionary note in several of the recommendations from the LAO policy brief. Some school districts have experienced significant difficulty implementing at one or two grade levels. If CSR is believed to confer benefits on children, it may be more important to ensure that all children receive the basic program before making funds available to all districts that wish to add an additional grade level.²⁷ In fact, some districts that have implemented CSR at three grade levels might need time to consolidate their efforts into an effective program. Given that Tennessee's Project STAR found that children made no additional achievement gains after their first year in smaller classes, it may be reasonable to consider whether schools can continue to make achievement gains beyond the first year or two of smaller classes.²⁸

Will Pressure on School District Funds Erode Other Programs?

The CSR is designed as an "incentive" program. All facilities and operating costs that exceed state funding levels are absorbed by the school district. Some school districts currently provide funds to "match" state support. While the program is voluntary for school districts, public and teacher pressure to participate is substantial. Respondents to the LAO survey indicate that they face varying CSR facility and operating costs. The average district, according to the LAO report, faces an average cost of \$770 per student with an average 18.8 students per classroom.²⁹

²⁷ Further, if physical space constraints disproportionately occur in school districts with large numbers of at-risk children, this becomes a greater concern given that the largest achievement gains reported in the Project STAR study occurred in schools with the least advantaged children.

²⁸ In fact, one of the most interesting and confounding results of the Project STAR study was that the gains made by children during their first year in smaller classes began to erode in subsequent years even though the children remained in smaller classes. The one exception was for children who began in smaller classes in kindergarten. Those children made small additional gains in first grade, but their gains also began to erode in subsequent years.

²⁹ As noted by the LAO, there is wide variation in these cost data. Excluding the smallest districts where some report no additional costs associated with reducing class size, the range is from \$400 to over \$1,000 per student.

School districts, whose costs exceed the state contribution, report using a variety of strategies in order to fund their share of CSR costs. Some have made cuts in programs or offered buyouts to senior teachers and administrators. Most, however, have spread the costs among a large number of budget items, including: reducing classroom supplies and curricular support; reducing the number of district employees; reducing building maintenance; using capital accounts for portables; reducing release time for teachers; and reducing contingency fund balances. Undoubtedly, school districts are likely to face increasing fiscal pressure in future years whether or not their costs in the current year exceed the state support levels.³⁰ Eventually, these fiscal pressures will force reductions in other programs; force changes in employee pay or working conditions; or force reductions in support for smaller classes.

Softening the 20-pupil cap, as suggested by many parties, is one way to ease financial pressure at many school districts. Nevertheless, at the margin, school districts facing higher costs will continue to face pressure in both their operating and capital budgets. Enrollment growth in many districts will further exacerbate these problems. Thus, further analysis of CSR costs and school district strategies for supporting CSR is important in order to develop a more complete understanding of potential district funding problems and possible solutions.

Will Physical Space Constraints Prevent Equal Implementation Within School Districts?

Our survey indicates that space constraints are a problem for some school districts now. Space is a particularly significant issue for districts experiencing rapid growth such as Elk Grove Unified and San Diego Unified School Districts. Although both of these districts face space constraints, each is experiencing a different set of problems. Elk Grove is unable to build new schools fast enough to meet their demand for space due to enrollment growth, while San Diego is faced with school sites in many areas that have no available space. Other districts, such as Compton and Los Angeles Unified School Districts, report that an uneven growth in the population of families with school-age children strains the capacity of some schools or some school clusters, but not others. These districts use various strategies, including: busing to move children to less crowded schools; realigning school grade ranges to shift capacity; moving to year-round schedules; and increasing the number of portables at these school sites.

Many of these strategies were in place before the CSR initiative. Our site visits confirm that school sites face real problems. Nevertheless, the absolute limit on physical capacity may be somewhat fuzzy. For example, it may be possible for school districts to place more portables at crowded school sites if they use existing playgrounds or move to multilevel structures. They also could reconfigure more elementary and middle schools by moving additional grade levels to middle school sites. They also could bus more children

³⁰ One major pressure many school districts will face is the so-called "step and column increase" built into teacher salary scales. In addition, districts express concerns about the need to replenish rainy day funds and reduce encroachment on other programs.

to less crowded schools or create more year-round schools. At some point, however, it is relevant to question how many of these types of solutions are desirable for the children, and how many are acceptable to parents. Parents expressed concerns or resisted such options in some districts.

The concerns outlined above are reasonable in that school districts increasingly are reporting that they have exhausted their low-cost options for relieving capacity constraints. Consequently, the future success of CSR in these districts requires special attention to be to their space and facilities concerns. The legislature recognizes this. There are several bills under consideration that would place a bond initiative before the voters. Each of these proposed initiatives includes one billion dollars for CSR facilities. In addition, there are at least two bills that would reappropriate unused current CSR operational funds to the CSR facilities account.

Will Teacher Supply Increase Rapidly Enough to Prevent Bottlenecks?

Teacher supply and quality have been on-going issues since the CSR debate began. The LAO report indicated that the quality and experience of teachers has declined in many districts. Fully implementing CSR at three grade levels and accommodating enrollment growth will require additional teachers at a time when most sources of teachers with credentials are nearing exhaustion. Legislation has allowed people to enter the profession under alternative credential programs, and has allowed retired teachers back into teaching without losing their pensions. These stop-gap measures should help stave off shortages in the short term. It is not yet clear, however, whether education schools will attract enough new students to increase supply in the long run.

In addition, some administrators have raised concerns about the quality of students applying for entry into education schools and for those who have graduated. While this is not strictly a CSR issue, it plays a role in how school administrators view CSR implementation. Some administrators have expressed concerns about the kind of training that education school students receive. They are concerned that the course work these students receive is not relevant to actual teaching needs. Solving these quality issues is important since research indicates that teacher quality affects student achievement.³¹

Finally, the shortage of teachers plays a role in the cost of CSR implementation. In some instances, teachers may command a higher starting salary. In others, the effect may be less direct, in that some school districts might negotiate improved salaries for teachers in non-CSR classes.

³¹ See Ferguson, Ronald, "Paying for Public Education: New Evidence on How and Why Money Matters," 28 *Harvard Journal of Education* (1991) and Ferguson, Ronald and Ladd, Helen, "How and Why Money Matters: An Analysis of Alabama Schools," in Helen Ladd, ed. Holding Schools Accountable: Performance Based Reform in Education, Brookings Institution (Washington D.C.) 1996 for a discussion of these issues.

APPENDIX A: SURVEY METHODOLOGY

Who was Surveyed? Our survey examined the same 200 school districts surveyed by the LAO/SDE. We also sent surveys to two school districts that were in the original sample but were inadvertently left out of the LAO/SDE mailing.³² All school districts applying for CSR operational funds comprised the population from which the LAO/SDE obtained their sample. School district size is the basis for the LAO/SDE sample. The sample includes the 50 largest school districts, and 50 school districts from each of three smaller size categories. The sample size classes are: (1) the 50 largest districts; (2) school districts with more than 5,000 students, but not one of the top 50; (3) districts with between 1,000 and 5,000 students; and (4) school districts with fewer than 1,000 students.

Are the Data Representative? One hundred sixty school districts responded to our survey. Overall, respondents represent about 51 percent of K-3 and 53 percent of K-12 enrollment in California. Table A1 provides summary data about our sample respondents and about K-3 enrollment statewide. The distribution of responses among the four size classes is comparable to the LAO survey. It appears to be representative with the possible exception of the school districts with fewer than 1,000 students.

Table A1: Summary Information Regarding CRB Sample

Size Category	CRB Sample Respondents			Statewide Totals	
	Enrollment	Number	Percent of Total	Enrollment	Number
50 Largest	746,570	44	91.1	819,403	50
5,000 to 20,000	143,206	41	21.4	668,309	178
1,000 to 5,000	39,653	40	14.3	277,366	260
Under 1,000	5,119	35	8.6	59,415	407
Totals	934,548	160	51.2	1,824,493	895

³² Due to a mix-up in the printing of mailing labels, the LAO/SDE inadvertently left out of their mailing two districts that were in the original random draw. In place of these two districts, mailing labels were printed for two districts not in the original draw. These two districts were treated as part of the random sample and included in our results because these districts were not self selected.